

*\* Ship Nov 2<sup>nd</sup> \**

Work Order ID 75653

**\*75653\***

Page 1

Item ID: D3510-041

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Stop

**\*NS2\***

Item Name: Skidtube Insert Assembly

Start Date: 10/27/11 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 10/28/11 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan: *W*

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3510

Rev C

100

0.00

**\*100\***

MORI SEIKI CNC LATHE LARGE

Mori Seiki

Memo

0.00

Mori Seiki CNC Lathe Large

Turn as per Dwg D3510 & Folio FA652  
Ensure that DT8877A Plug fits in tube.

*1 Ø*  
*mm. L 11/10/28*

110

0.00

**\*110\***

QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

*1 Ø*  
*mm. L 11/10/28*

**Work Order ID 75653****\*75653\***

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Item ID: D3510-041      Accept      **\*N900040100\***      Setup Start **\*NS1\***  
Revision ID:      Stop **\*NS2\***  
Item Name: Skidtube Insert Assembly  
Start Date: 10/27/11      Start Qty: 1.00      **\*1\***      Cust Item ID:  
Required Date: 10/28/11      Req'd Qty: 1.00      **\*1\***      Customer:  
Reference:

Approvals:      Process Plan:      Date:      Tooling:      Date:      Run Start **\*NR1\***  
QC:      Date:      SPC (Y/N):      Date:      Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 <b>*120*</b> HAAS 1 HAAS CNC vertical machine #1	HAAS CNC VERTICAL MACHINING #1  Memo 1-Machine as per Folio FA652 and Dwg D3510  2-Deburr  Note: *-****.250" dia holes are to opened to finish size by skidtube dept, and missing .266" dia hole is to be drilled by skid dept. *****	0.00  0.00		B.A 11/11/01		1	0		
130 <b>*130*</b> QC Quality Control	QC2- Inspect parts off machine FAI/FAIB  Memo	0.00  0.00		B.A 11/11/01		1	0		
140 <b>*140*</b> QC Quality Control	QC8- Inspect parts - second check  Memo	0.00  0.00		29 11.11.1		1	0		



Shp Abu-2

Work Order ID 75653

\*75653\*


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Item ID: D3510-041 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Skidtube Insert Assembly  
 Start Date: 10/27/11 Start Qty: 1.00 \*1\* Cust Item ID:  
 Required Date: 10/28/11 Req'd Qty: 1.00 \*1\* Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Skidtubes	0.00							
*150*									
Skidtubes	Memo	0.00							
Skidtubes	1-Drill .266" Dia hole using DT8877B as per Dwg D3510								
	2-Counter bore wearplate holes as per Dwg d3510.								
	3-open wearplate holes to .297 as per Dwg D3510.								
	4-Deburr								
160	QC5- Inspect part completeness to step on W/O	0.00							
*160*									
QC	Memo	0.00							
Quality Control									
170	Chemical Conversion Coat per QSI005 4.1	0.00							
*170*									
HandFinish	Memo	0.00							
Hand Finishing									

> 

11-11-1

 11-11-02 (1)

170 M-L 11/11/02

# Work Order ID 75653

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Item ID: D3510-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Skidtube Insert Assembly  
 Start Date: 10/27/11 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 10/28/11 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC3- Inspect Part Finish	0.00							
<b>*180*</b>									
QC	Memo	0.00							
Quality Control									
190	HandFinishing	0.00							
<b>*190*</b>									
HandFinish	Memo	0.00							
Hand Finishing	Install inserts as per Dwg D3510								
200	QC5- Inspect part completeness to step on W/O	0.00							
<b>*200*</b>									
QC	Memo	0.00							
Quality Control									

1 BR 11-11-2.

1 BR 11-11-2.

11 - 11 - 02 (1)

# Work Order ID 75653

**\*75653\***

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Item ID: D3510-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Skidtube Insert Assembly  
 Start Date: 10/27/11 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 10/28/11 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	Identify as per dwg & Stock Location: _____	0.00							
<b>*210*</b>									
Packaging	Memo	0.00							
Packaging									
220	QC21- Final Inspection - Work Order Release	0.00							
<b>*220*</b>									
QC	Memo	0.00							
Quality Control									

11/11/02  
 MF  
 11-10-02

# Picklist Print

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Page 1

Work Order ID: 75653  
 Parent Item: D3510-041  
 Parent Item Name: Skidtube Insert Assembly

Start Date: 10/27/11 Required Date: 10/28/11  
 Start Qty: 1.00 Required Qty: 1.00

Comments: IPP Rev:A New Issue 06-10-12 JLM  
 IPP Rev:B ALES-1032 and ALS4-428 insert now used ECN 1036 DD  
 IPP Rev:C Revised manufacturing steps for LG 08-09-29 Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
ALS4-1032-225 Insert		Purchased	No			190	Each	2,476.0000	6	6		BR 11-11-2.	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST281	118696.	2476			6.				
				108696		624							
				110768		62							
				118386		860							
				118966		930							
ALS4-428-165 Inserts		Purchased	No			190	Each	485.0000	2	2		BR 11-11-2.	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				FP		467							
				117769	✓	467			2.				
				FP-B		18							
				114172		18							
ALS7-1032-130 Insert		Purchased	No			190	Each	499.0000	2	2		BR 11-11-2.	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST281		499							
				117717		27							
				118386		146							
				118966	✓	326			2.				
M6061T6T3.500W.375 6061-T6 RD Tube 3.50 X .375 W		Purchased	No			100	f	0.9631	2.55	2.6842105			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				MAT014		0.9631							
				17392		0.9631			2.54				

amm 11/10/28

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b> 45653
<b>Description:</b> Skidtube Insert		<b>Part Number:</b> D3510-041
<b>Inspection Dwg:</b> D3510 <b>Rev:</b> C		<b>Page 1 of 1</b>

### FIRST ARTICLE INSPECTION CHECKLIST

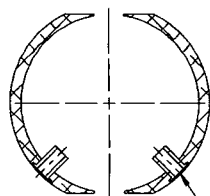
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø3.300	+/-0.010	3.300	✓		Vern	CNC-08
Ø2.940	+/-0.010	2.940	✓		"	
Ø2.750	+/-0.010	2.753	✓		"	
R0.25 x 0.066	+/-0.010	.25 x .066	✓		H/G	
15.00	+/-0.030	15.60	✓		tape	mm-L-02
0.063 x 45°	+/-0.010 x 0.5°	.063 x 45°	✓		Vern	CNC-08
0.125 x 45°	+/-0.010 x 0.5°	.125 x 45°	✓		"	
5.270	+/-0.010	5.280	✓		"	
3.265	+0.000/-0.010	3.259	✓		"	
30.50	+/-0.030	30.50	✓		tape	mm-L-02
9.515	+/-0.010	9.515	✓		Vern	CNC-02
6.875	+/-0.010	6.875	✓		"	"
13.750	+/-0.010	13.750	✓		Tape	GA-12
1.600	+/-0.010	1.600	✓		H-G	31006
2.165	+/-0.010	2.165	✓		Vern	GA-01
6.735	+/-0.010					
2.981	+/-0.010					
2.434	+/-0.010					
1.036	+/-0.010					
Ø0.266	+0.006/-0.001	Ø0.266	✓		Vern	GA-01
Ø0.391	+/-0.010	Ø0.393	✓		"	"
Ø0.516 x 0.100	+/-0.010	Ø0.521 x 0.107	✓		"	"

<b>Measured by:</b> MM.L B.A.	<b>Audited by:</b> RR	<b>Preliminary Approval:</b>
<b>Date:</b> 11/00/27/11/10/1	<b>Date:</b> 11.10.1	<b>Date:</b>

Rev	Date	Change	Revised by	Approved
A	09.06.01	New Issue	KJ	
B	11.10.13	Dimension corrected	KJ	

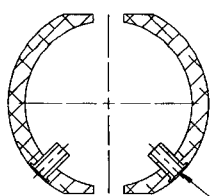


# **D3510-041 SKIDTUBE INSERT**



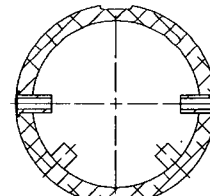
**SECTION A-A**

AFTER FINISH,  
INSTALL AELS-1032-130  
(2 PLACES)



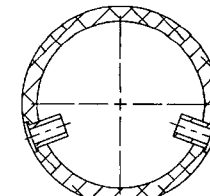
**SECTION B-B**

AFTER FINISH,  
INSTALL AELS-1032-225  
(4 PLACES)



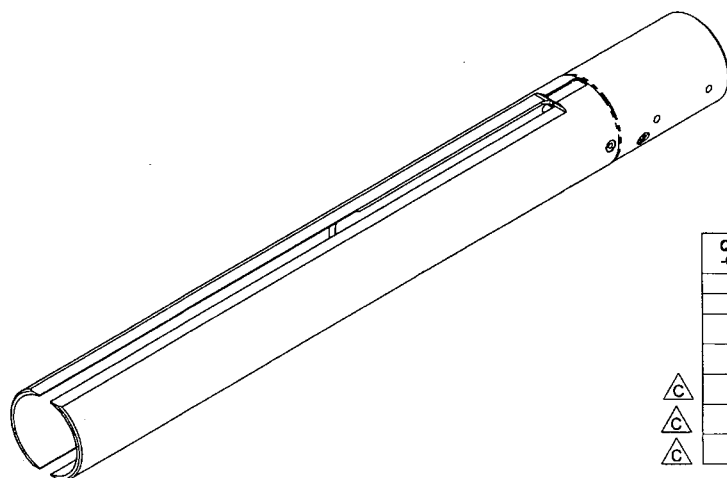
**SECTION C-C**

AFTER FINISH,  
INSTALL AELS-1032-225  
(2 PLACES)



**SECTION D-D**

AFTER FINISH,  
INSTALL ALS4-428-165  
(2 PLACES)



## **PARTS LIST**

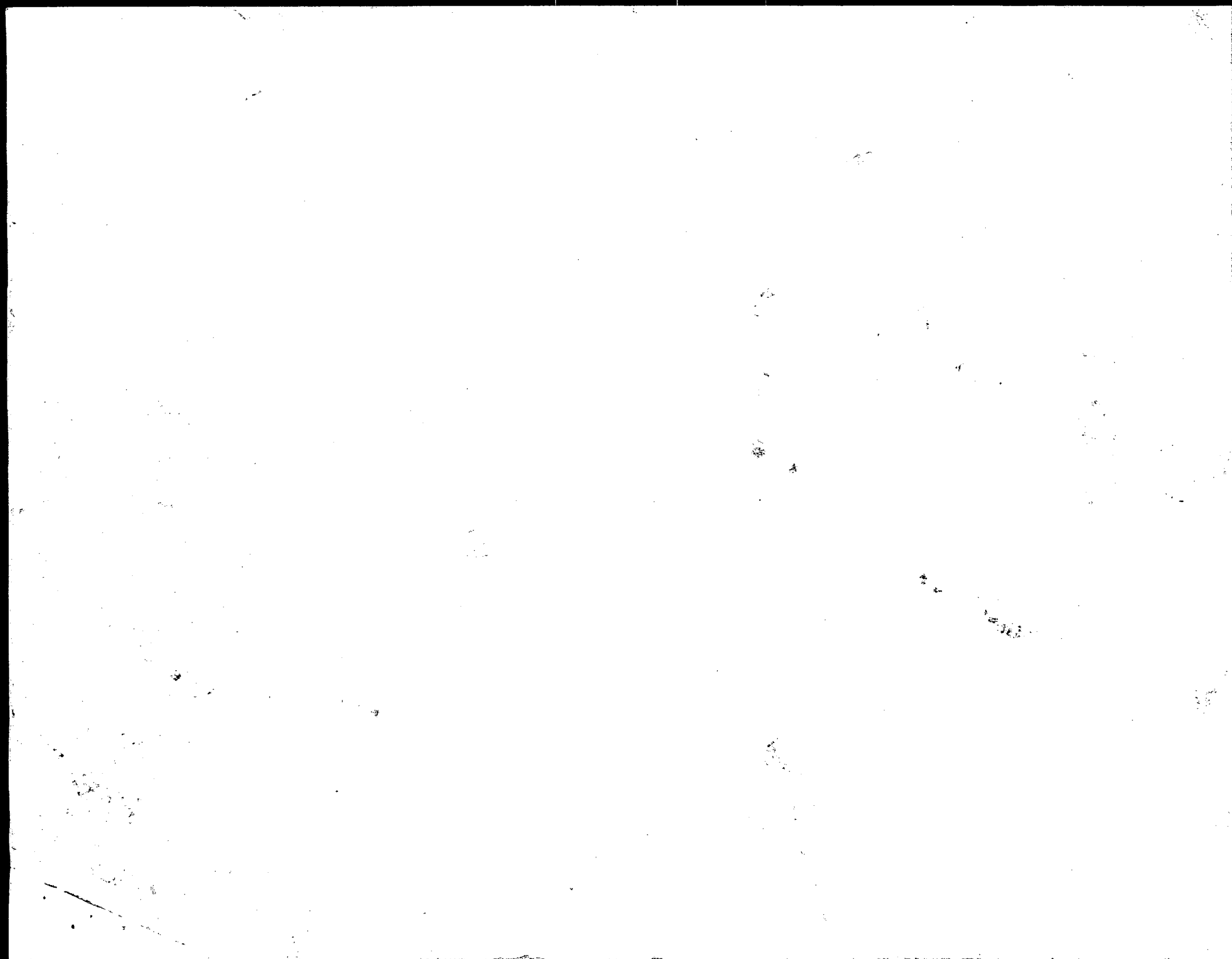
QTY -041	PART NUMBER	DESCRIPTION
X	D3510-041	SKIDTUBE INSERT
1	D6016-065	EXTRUSION
2	AELS-1032-130	INSERT
6	AELS-1032-225	INSERT
2	ALS4-428-165	INSERT

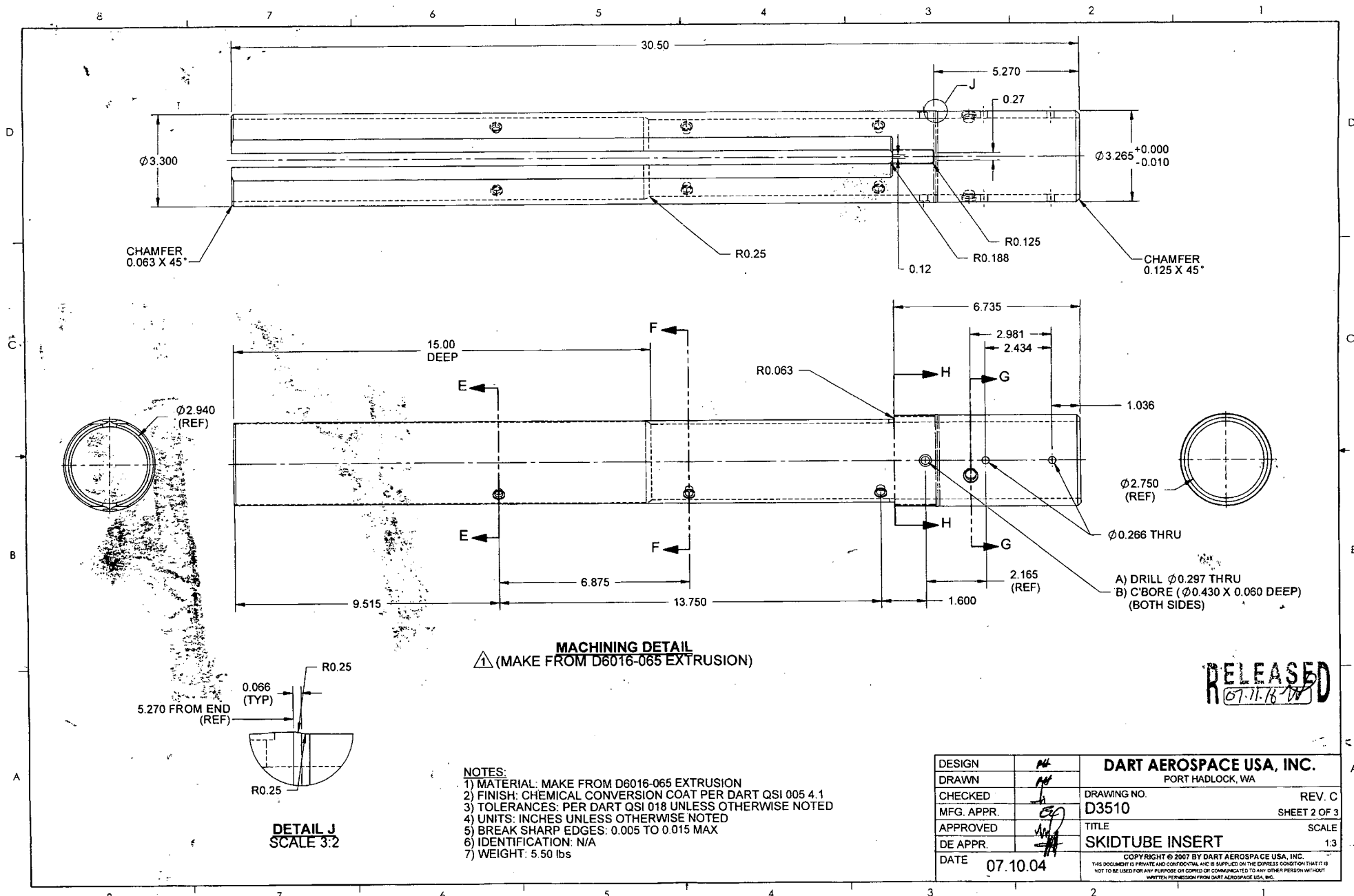


C	UPDATE DRAWING FORMAT AND CLARITY FOR MFG. CHANGE INSERTS FOR EASE OF INSTALLATION	PH	07.10.04
B	UPDATE DIMENSIONS	PH	06.09.20
A	NEW ISSUE	PH	06.04.21
REV.	DESCRIPTION	BY	DATE
DESIGN	PH	<b>DART AEROSPACE USA, INC.</b> PORT HADLOCK, WA DRAWING NO. <b>D3510</b> TITLE <b>SKIDTUBE INSERT</b> SCALE <b>1:3</b> <small>COPYRIGHT © 2007 BY DART AEROSPACE USA, INC.                      THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS                      NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT                      WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	
DRAWN	PH		
CHECKED	PH		
MFG. APPR.	PH		
APPROVED	PH		
DE APPR.	PH		
DATE	07.10.04		

**RELEASED**  
07-11-16

W/075653





RELEASED  
07.11.16

